



Repairing Samsung Galaxy Tab 2 7.0 3G Sim Socket

Replace a mechanically damaged 3G SIM-socket due to wrong usage with SIM-Adapter.

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INTRODUCTION

- I wanted to try out Android and get a cheap device so I got me a damaged Galaxy Tab 2 (16GB 3G) from some popular online auction site.
- Device was being described as damaged SIM slot, but can be switched on. So I was hoping I could revive the full functionality again.
- Luckily it worked out although it's something for people with good eyesight and steady hands.
- Seems like several damaged GT-3100 (or similar) out there because of damaged 3G SIM-Slot.
- Using Adapter for Smaller-Than-Normal SIM cause broken/bent pins in SIM-Slot when removing Adapter/SIM.
- Opening the device and replacing SIM-Socket is not very difficult.



TOOLS:

- [Desoldering Braid](#) (1)
- [Phillips #0 Screwdriver](#) (1)
- [iFixit Opening Tools](#) (1)
- [Soldering Station](#) (1)
- [Spudger](#) (1)



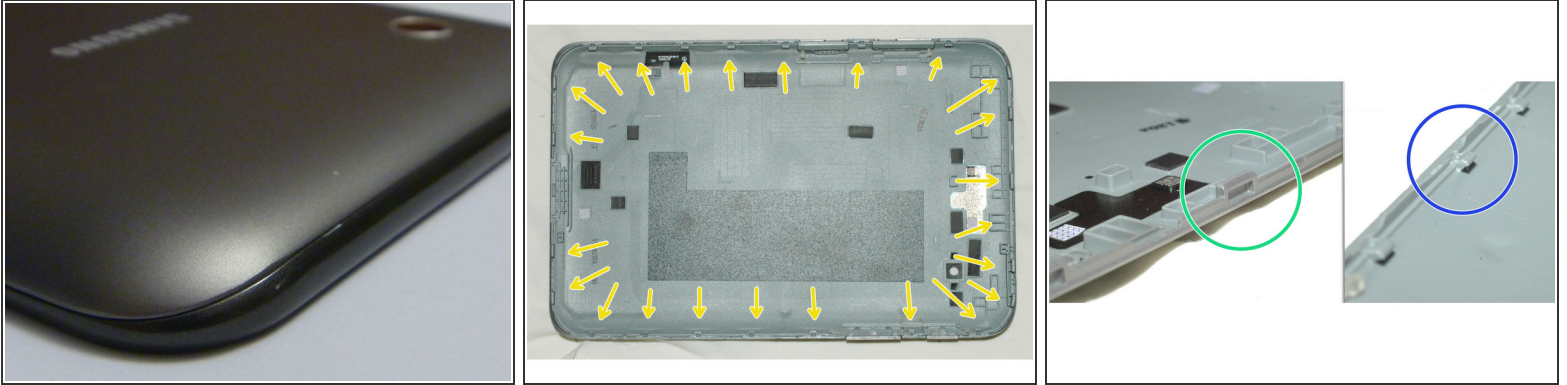
PARTS:


- [Replacement 3G SIM-card holder](#) (1)

Unsoldered for GT-P1000

Unsoldered part exactly like for GT-P1000 (some available on auction site) Should be "flex" type to provide spring loaded action. Part for GT-P1000 does exactly fit !

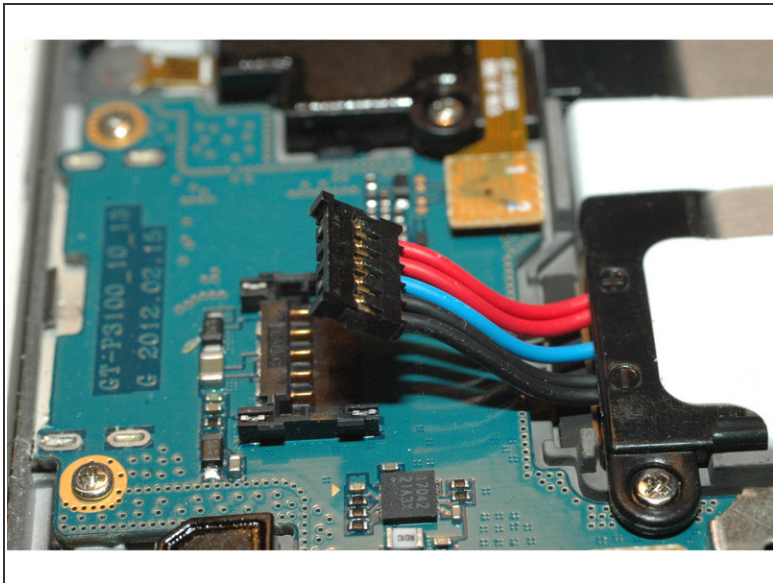
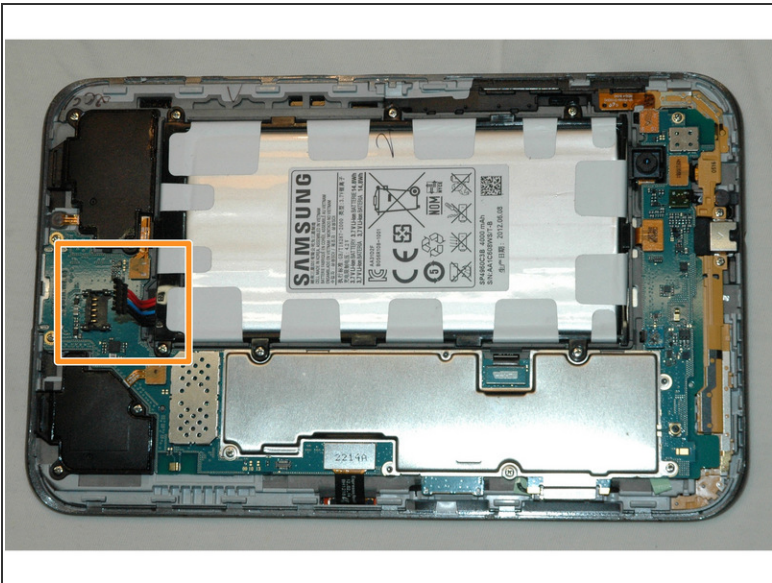
Step 1 — Open Case



 Place device face down on cloth to avoid scratches on the screen.

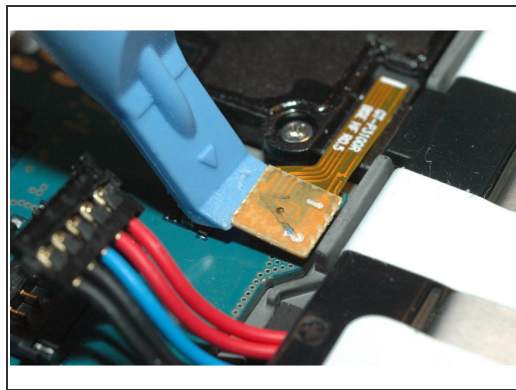
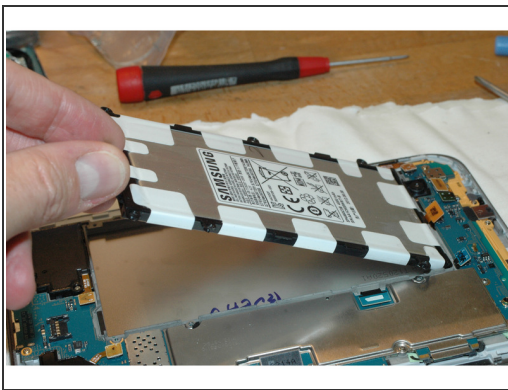
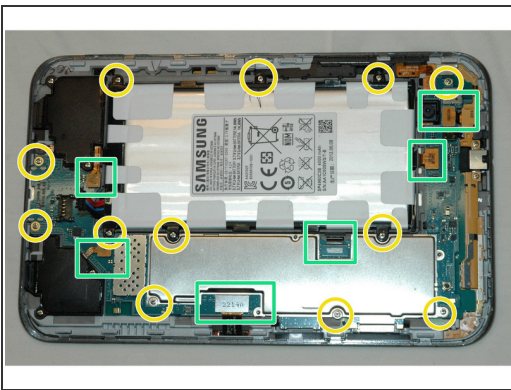
- Open device with plastic opening tool around the edges. Work slowly, avoid using a sharp metal opening tool to avoid creating marks on the device.
- Location of noses on bottom cover (2nd Image)
- Note that on the top and bottom of the device, the noses protrude from the display side into the back cover.
- On the sides of the device, the noses protrude from the back cover into the display side. (Opposite from the top and bottom of the device)
- In order to remove the case, you will have to push the back cover inwards on the top and bottom of the device. On the sides, you will have to pull the the cover out.
- Marks made on the plastic can be partially removed by pressing the material back.

Step 2 — Detach Battery



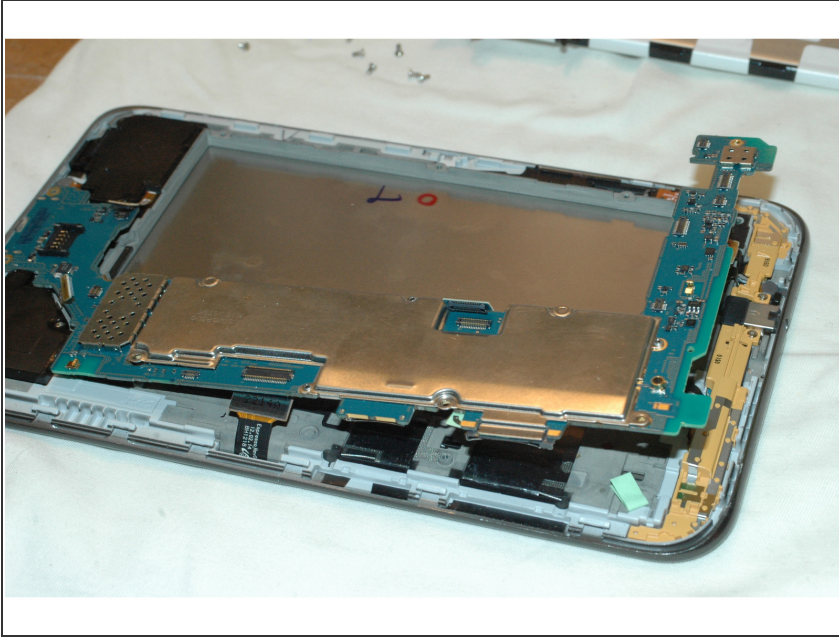
- Detach the battery by lifting the black connector up carefully with a non-metallic tool or your hand.

Step 3 — Unscrew and detach flat-ribbon cables



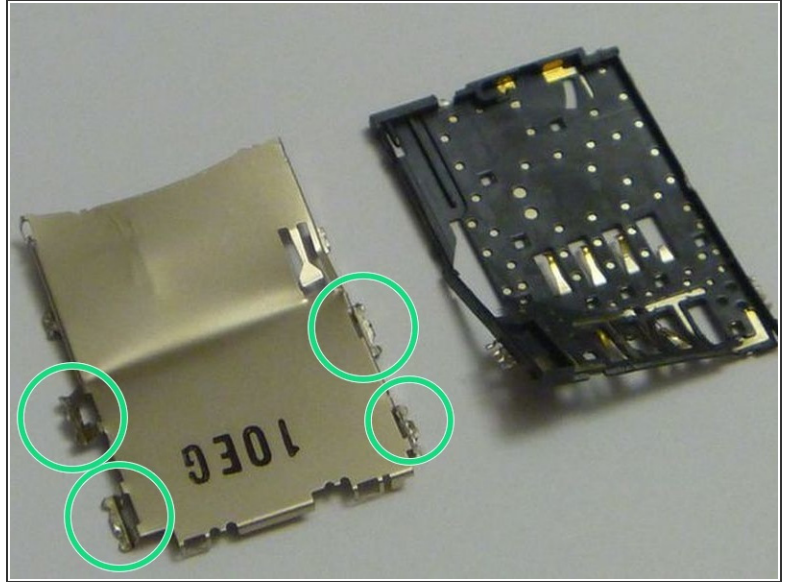
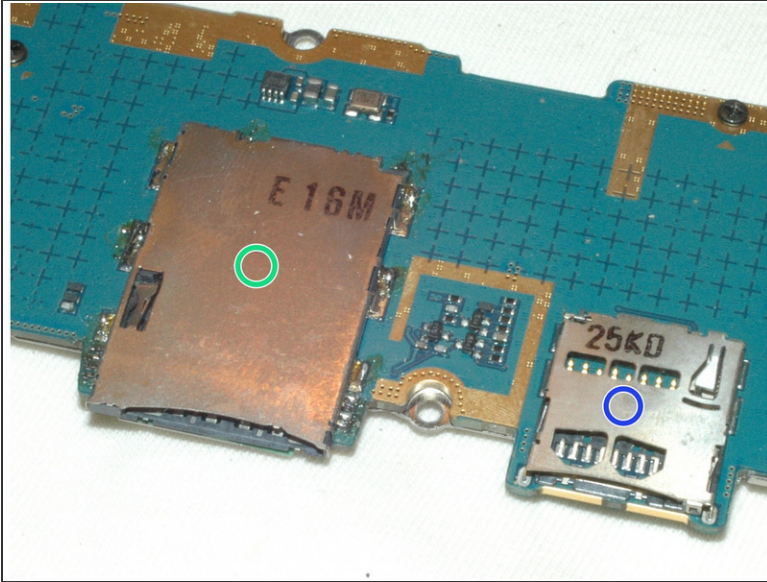
- Remove the 11 screws from the main PCB board and battery. (Yellow circles indicate screw locations)
- Remove the battery indicated by the 2nd image.
- Detach all flex connectors. (Green squares indicate the flex connector locations - 1st image) Be very careful not to rupture the 8 cables because they are very delicate.

Step 4 — Remove main PCB



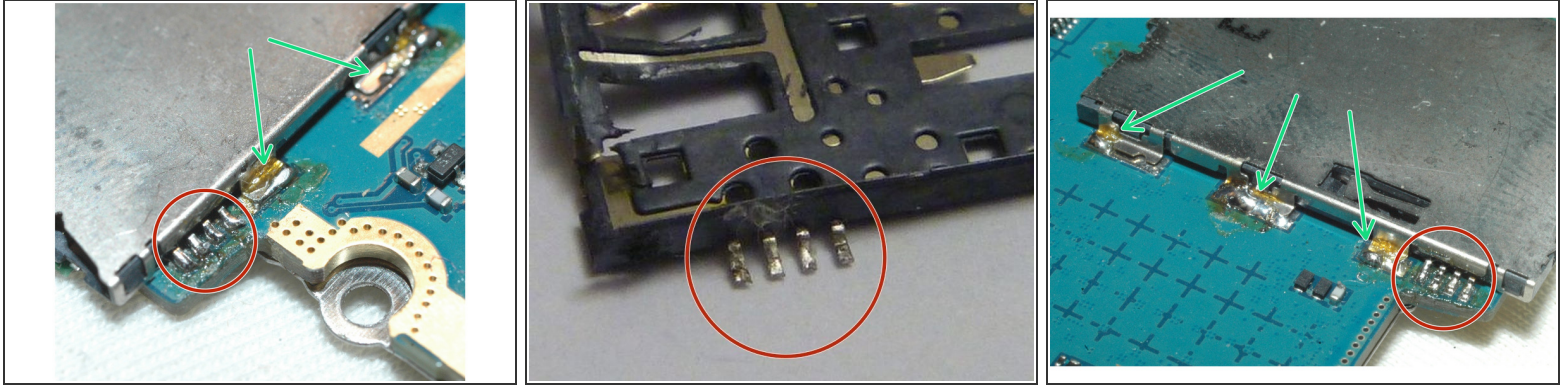
- Remove the main PCB board by first lifting it carefully from the side that is away from the connector. Again, take care in not ripping the flex cables that are bending back.

Step 5 — Remove damaged socket



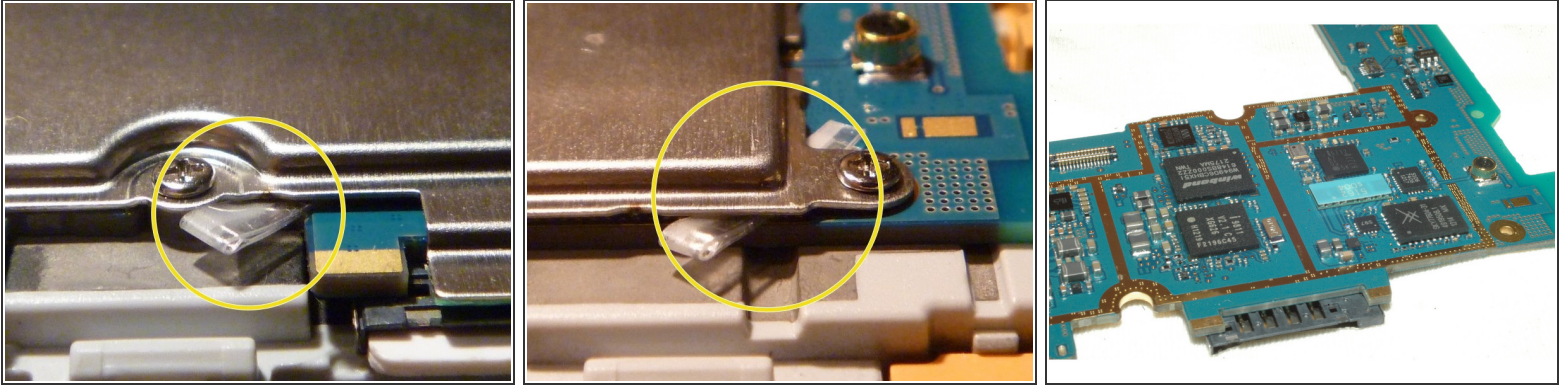
- On the flip side of the main PCB board is the micro-SD and the 3G SIM-socket. Use a soldering iron to remove the damaged socket. Using a lead-free solder will require more heat. You can use a traditional solder to decrease the temperature if necessary. (Add solder first, then remove with solder wick)
- SIM Socket is indicated by the green circle in the 1st image.
- Micro-SD Socket is indicated by the blue circle in the 1st image.
- Since the old socket is damaged anyway, you do not need to remove it in one piece. Desolder each pad and carefully bend the holder upwards. Applying too much force could possibly damage one of the 8 pads on the PCB edge.
- Clean the solder residue off of the 8 pads on the main PCB board.

Step 6 — Solder new socket



- You can optionally add solder to the pins before installing the new SIM socket. The 8 small signal pins must have an especially good connection.
 - The socket will have 8 signal pins on the card-inserting side, several pads for shielding, and two pads at the rear for inserted SIM detection. (Red circle in all images indicates the location)
 - Place the new socket on the board and solder at one shield edge first to make the socket more stable.
 - Solder the eight signal pins at PCB board edge. Try to be as steady as you can when soldering. If you happen to bridge some pins, do not panic. Use a solder wick to remove additional solder.
 - Use a magnifying glass or microscope if necessary. The contact area of the signal pads is tiny, so even if they look like they are touching the PCB board, they might not actually be touching.
- ⚠ Before soldering all shield pads, check if system is working! Otherwise you might have to re-solder the socket again.
- You can test the device while it is open, but the PCB board and the battery have to be in place. You will be able to see if 3G works but WIFI will be bad because the antenna is on the back cover which will be removed at the time.

Step 7 — Test before closing



- If everything works, put the PCB board back with the dock-connector in first.
- Connect all 8 of the flex connectors.
- Screw all 11 screws back into place.
- DO NOT CLOSE THE COVER.
- Test the function of the device again with the cover open. Test 3G to see if it comes on several times to see if it is still working. Test especially after you tighten all of the screws.
- Loosen some of the screws if the 3G SIM is failing, as this could be the cause of the problem. If you need to, insert spacers between the PCB board and case around the SIM-Slot. Be aware that the spring contact between the PCB board and the 3G antenna needs to be widened a little.

Step 8 — Close back cover



- Close the back cover by putting device face-down on cloth and carefully applying pressure on back cover. You will hear audible clicks from the noses clicking back into place. (SIM and MicroSD must not be inserted while doing this)

Hopefully everything worked out for you and you're now a proud owner of a revived Tab

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